

Grade: 4th – Adult
Time: 1-1/2 hours
Season: All

Red Rock Course (Orienteering)

National Science Teaching Standards

- A.** Science as **INQUIRY**
- B.** **PHYSICAL** Science
- C.** **LIFE** Science
- E.** Science **TECHNOLOGY**
- F.** Science in **PERSONAL** and **SOCIAL PERSPECTIVE**
- G.** **HISTORY** and **NATURE** of Science

Background:

This orienteering experience is actually taking the student outdoors to use the knowledge learned in Basic and Shapes orienteering activities.

Objective:

Students will be able to follow an orienteering course (Loop De Loop or Twister) in the woods given the bearings needed.

Pre Activity:

- Research the tools used through history for navigation.
- Review the directions: North, South, East, and West; know the intermediate directions: Northeast, Northwest, Southeast, Southwest. Play the old game “Simon Says” using the above directions.

Equipment:

- Compass for each student
- Red Rock Course: Loop De Loop sheets and Twister sheets
- Orienteering flags set out on the courses
- Orienteering flag for demonstration
- Chaperone for each group

Procedure:

1. Review use of a compass.
2. Practice sighting ahead. While walking a bearing students, should notice how difficult it is to keep RED FRED in his SHED...that is because it is very difficult to keep the compass steady while walking and watching where you are stepping all at the same time. Have the students set a bearing, look ahead and find an object off in the distance (not too far at first) that is in the path straight ahead. Walk to that object. Check bearing; sight another object in the distance, walk to that object and so on. This is called sighting ahead. The students can check to see if they are on the correct path by turning 180 degrees (like they are going back and the white needle, WHITE TED, should be in the SHED.

3. Hand out to half of the group Loop De Loop Course sheets and to the other half of the group Twister sheets.
4. Within each of those groups divide students into smaller groups if you have enough chaperones. Remember 1 adult per small group.
5. Go over course rules:
 - Walk only, no running...you will be going off the trail. There are a lot hidden sticks, roots, rocks and it can be slippery.
 - Work as a group and stay with your group
 - Starting locations for each course
 - Importance of sighting ahead and taking turns
 - Getting to an orienteering flags (show the one you have) means you have reached your destination.
 - Punch your course sheet with stapler attached to orienteering flag when you reach it (demonstrate it)
 - Tell the groups time they need to be back to the classroom
6. If you have more than one group of Loop De Loop and more than one group of Twister, you will need to stagger the starting times for each. Otherwise, they will be lumped together.
7. Put compasses away.
8. Discuss how the adventure went.

Post Activity:

- If compasses are available, go to playground and practice setting bearings and following them.
- If compasses are not available, using directions and intermediate directions, have students create a “treasure hunt.” Give each student a piece of wrapped candy or a new pencil. The student finds a place to put it on the playground. The student then creates the “hunt” by choosing a starting point, walking a designated number of steps in a designated direction, so on until he/she is lead back to the “treasure.” Each student should create a treasure map as he/she is mapping out the number of steps and the direction of travel. Have students switch treasure maps to see if they can follow the directions on the map to find the treasure using another student’s map!

Post Discussion:

- Discuss the problems you had using a compass.
- Discuss how just having a compass if you are lost does not help you! You also need a topographical map to get your bearings from.
- Discuss how early explorers must have felt going off into “unknown” territories.
- Talk about explorer of today (astronauts, deep sea explorers) must feel exploring.
- Research some of the tools used of the past and present to help explorers find their way. Share that information.